

Appl. No. 10/802,166  
Atty. Docket No. 9184M  
Amdt. dated 02/12/2007  
Reply to Office Action of 08/10/2006  
Customer No. 27752

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### REMARKS

#### Claim Status

Claims 1-4 and 7-25 are pending in the present application. No additional claims fee is believed to be due.

Claim 1 has been amended to further define the present invention wherein the composition further comprises from about 0.01% to about 5% of a pyrithione or a polyvalent metal salt of a pyrithione. Support for this amendment is found in Claim 2, as originally filed, and which is now canceled.

Claim 3 is amended for proper claim dependency.

It is believed these changes do not involve any introduction of new matter. Consequently, entry of these changes is believed to be in order and is respectfully requested.

#### Rejection Under 35 USC §102(b) Over U.S. 4,933,101 (Cilley et al.)

Claims 1, 4, 7-8, 12-17 have been rejected under 35 USC §102(b) as being anticipated by US 4,933,101 to Cilley et al. (hereinafter "Cilley").

Cilley et al. discloses liquid automatic dishwashing detergent compositions comprising from 0% to about 5% of detergent surfactant; from about 5% to about 40% of detergency builder; hypochlorite bleach to yield available chlorine in an amount of from 0% to about 2.5%; from about 0.25% to 10% of a thickening agent; and an amount of an insoluble inorganic zinc compound, having an average particle size less than about 250 microns, that will provide the composition with from about 0.01% to about 1.0% zinc; said composition having an apparent yield value of from about 40 to about 800 dynes/cm<sup>2</sup>. Such compositions are asserted to be useful for inhibition of glassware corrosion in the dishwasher.

In contrast, Claims 1, 4, 7-8, 12-17, as now amended, are directed to a personal care composition comprising from about 0.001% to about 10% of a zinc-containing layered material; from about 2% to about 50% of a surfactant including a surfactant with an anionic functional group; from about 0.01% to about 5% of a pyrithione or a polyvalent metal salt of a pyrithione; wherein the zinc-containing layered material has a relative zinc lability of greater than about 15%.

Cilley et al. does not disclose or suggest a composition comprising from about 0.01% to about 5% of a pyrithione or a polyvalent metal salt of a pyrithione, which is the

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matter of Claim 2, and now incorporated into Claim 1. Therefore, the instant claims are not anticipated by Cilley et al.

In view of the above remarks, it is requested that the Examiner reconsider and withdraw this rejection under 35 USC §102(b).

**Rejection Under 35 USC §102(b) Over WO 01/00151 (Gavin et al.)**

Claims 1-4 and 7-25 have been rejected under 35 USC §102(b) as being anticipated by International Patent Application No. WO 01/00151 to Gavin et al (hereinafter "Gavin et al.").

Gavin et al. discloses topical compositions for the treatment of microbial infections on the skin or scalp. Specifically, the composition of Gavin et al. includes from about 0.001% to about 10% by weight of the composition, of an anti-microbial active selected from the group consisting of polyvalent metal salts of pyrithione, from about 0.001% to about 10%, by weight of the composition, of a metal ion source selected from the group consisting of zinc salts, copper salts, silver salts, nickel salts, cadmium salts, mercury salts, bismuth salts and mixtures thereof and a topical carrier for the anti-microbial active and the metal salt.

The present invention is directed to a personal care composition comprising from about 0.001% to about 10% of a zinc-containing layered material; from about 2% to about 50% of a surfactant including a surfactant with an anionic functional group; from about 0.01% to about 5% of a pyrithione or a polyvalent metal salt of a pyrithione; wherein the zinc-containing layered material has a relative zinc lability of greater than about 15%. Gavin et al. does not disclose or suggest a zinc-containing layered material having a relative zinc lability of greater than about 15%. The Office Action asserts that since the disclosure of Gavin et al. has the same zinc-containing layered material as the instantly claimed invention, then it would inherently have the same relative zinc lability of greater than about 15%.

The Office Action further asserts that "zinc carbonate" is synonymous with "basic zinc carbonate" as defined in the instant specification. However, it is respectfully submitted that the specification at page 6, lines 3-7 merely discloses that the terms are used interchangeably in commercial product designations.

As support for the interchangeability of the terms "zinc carbonate" and "basic zinc carbonate", the outstanding office action points to an MSDS sheet from Mallinckrodt Baker, Inc. However, this MSDS sheet is not properly considerable as art as of the filing date of

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the instant application since the face of the MSDS sheet shows a publication date of 2006. Further, the MSDS sheet itself presents inconsistent information. Although the chemical formula presented in the MSDS sheet shows hydroxyls present i.e.  $3\text{Zn}(\text{OH})_2\text{ZnCO}_3$ , the "Composition/Information on Ingredients" does not identify any hydroxyls i.e. -OH. Further, the "Composition/Information on Ingredients" identifies the presence of a major amount of Zinc Oxide (70%) in the zinc carbonate product being described by the MSDS sheet. To the contrary, zinc carbonate does not comprise zinc oxide.

Applicants do not concede that the term zinc carbonate is synonymous with basic zinc carbonate. Instead, Applicants respectfully summarizes the inconsistencies reflected in the 2006 MSDS sheet:

- Firstly, the title of the MSDS is Zinc Carbonate. The chemical formula of zinc carbonate is identified as  $3\text{Zn}(\text{OH})_2\text{ZnCO}_3$ . As Applicants have discussed previously, it is conventionally and generally known by one of skill in the art, that the recognized formula for Zinc Carbonate is  $\text{ZnCO}_3$ . The formula for basic zinc carbonate is  $\text{Zn}_5(\text{OH})_6(\text{CO}_3)_2$  (see specification at page 6, lines 5-6). As shown by the chemical formulas, Applicants submit basic zinc carbonate contains at least one "-OH" group, while zinc carbonate does not contain any "-OH" groups. As the MSDS does not have the correct chemical formula for zinc carbonate, Applicants submit the MSDS is erroneous. The MSDS purports to identify and provide information concerning "zinc carbonate". Accordingly, the MSDS should contain the correct formula of zinc carbonate, which is  $\text{ZnCO}_3$ .
- Secondly, Section 2 of the MSDS, entitled "Composition/Information on Ingredients" states the Ingredients of Zinc Carbonate are Zinc Carbonate (3%) and Zinc Oxide (70%). Zinc Carbonate, having the correct formula of  $\text{ZnCO}_3$ , does not contain Zinc Oxide. Therefore, this MSDS is internally inconsistent with regard to nomenclature. The chemical formula and the list of ingredients for the purported "Zinc Carbonate" of the MSDS are not consistent with each other.

Additionally, in view of the late date of the MSDS sheet vis-a-vis the filing date of the instant application, and in view of the inconsistencies in the data presented in the MSDS sheet, it is respectfully submitted that it cannot be relied upon to provide any expanded scope to the disclosures to the Gavin et al. reference beyond that reflected in the Gavin et al. reference itself.

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Gavin et al. discloses a myriad of zinc salts, including zinc carbonate and a dozen or so other zinc salts at page 6, lines 1-6 of the reference. In this long list of zinc salts, there is no disclosure or suggestions of basic zinc carbonate which contains the formula  $\text{Zn}_5(\text{OH})_6(\text{CO}_3)_2$ .

In short, Applicants maintain that personal care compositions comprising zinc-containing layered material as instantly claimed are neither disclosed nor suggested by the disclosure of insoluble particulate zinc carbonate provided among a myriad of zinc salts alluded to in Gavin et al.

As noted in our discussion above, basic zinc carbonate contains an "-OH" group. In contrast, zinc carbonate, as shown above, does not contain an "-OH" group. There is no discussion in Gavin et al. to alter the zinc carbonate by introduction of an "-OH" group, as there is no hydroxide, hydroxyl or hydroxy terms disclosed or taught. Clearly, had Gavin et al. been showing any intention to use any and all variants of zinc carbonate, such disclosure would be found.

As previously explained, zinc carbonate ( $\text{ZnCO}_3$ ) is structurally different from basic zinc carbonate ( $\text{Zn}_5(\text{OH})_6(\text{CO}_3)_2$ ). Accordingly, the composition of the instantly claimed invention is not the same as the composition of Gavin et al. Therefore, the composition of Gavin et al. would not inherently have a relative zinc lability of greater than about 15%, as is recited in the instant claims.

When one of ordinary skill in the art compares the composition of Gavin et al. to the instantly claimed invention, the compositions are not comprised of the exact same materials; namely Gavin et al. does not teach or suggest a zinc-containing layered material, such as basic zinc-carbonate and would not inherently have the exact same properties as the currently claimed product.

In light of the above remarks, it is requested that the Examiner reconsider and withdraw this rejection under 35 USC §102(b).

**Rejection Under 35 USC §103(a) Over US 5,227,156 (Wiese) in view of US 5,883,085**  
**(Blank et al.)**

Claims 1-4, 7-17, 19-21 and 25 have been rejected under 35 USC §103(a) as being unpatentable over US 5,227,156 (hereinafter "Wiese") in view of US 5,883,085 (hereinafter "Blank et al.")

In order to establish a prima facie cast of obviousness, the Examiner must show that (1) there is some suggestion or motivation, either in the references themselves or in the

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knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings, (2) there is a reasonable expectation of success, and (3) all of the limitations of the claims are taught or suggested in the prior art (M.P.E.P. 2143).

This 103(a) rejection is traversed for the following reasons. First, Wiese in view Blank et al does not establish a *prima facie* case of obviousness because it does not teach or suggest all of claim limitations of Claims 11-17, 19-21 and 25.

Wiese in view of Blank et al. does not teach or suggest all of the claim limitations of Claims 1-17, 19-21 and 25 and, therefore, does not establish a *prima facie* case of obviousness (see MPEP 2143.03). Specifically, as the Office Action has asserted on page 7 of this Office Action, Wiese does not expressly disclose zinc carbonate as one of the zinc compounds in the composition, although the Office Action notes that Wiese does disclose zinc compounds of organic acids. The Office Action further asserts that Blank et al. discloses topical skin formulations comprising zinc carbonate as a skin protectant. Therefore, it is asserted that it would have been obvious to one of ordinary skill in the art to modify the anti-dandruff shampoo of Wiese by adding zinc carbonate as suggested by Blank et al to produce the instant invention.

As support for the interchangeability of the terms "zinc carbonate" and "basic zinc carbonate", the outstanding office action points to an MSDS sheet from Mallinckrodt Baker, Inc. However, this MSDS sheet is not properly considerable as art as of the filing date of the instant application since the face of the MSDS sheet shows a publication date of 2006. Further, the MSDS sheet itself presents inconsistent information. Although the chemical formula presented in the MSDS sheet shows hydroxyls present i.e.  $3\text{Zn}(\text{OH})_2 2\text{ZnCO}_3$ , the "Composition/Information on Ingredients" does not identify any hydroxyls. Further, the "Composition/Information on Ingredients" identifies the presence of a major amount of Zinc Oxide (70%) in the zinc carbonate product being described by the MSDS sheet. To the contrary, zinc carbonate does not comprise zinc oxide.

Applicants do not concede that the term zinc carbonate is synonymous with basic zinc carbonate. Instead, Applicants respectfully summarizes the inconsistencies reflected in the 2006 MSDS sheet:

- Firstly, the title of the MSDS is Zinc Carbonate. The chemical formula of zinc carbonate is identified as  $3\text{Zn}(\text{OH})_2 2\text{ZnCO}_3$ . As Applicants have discussed previously, it is conventionally and generally known by one of skill in the art, that the recognized formula for Zinc Carbonate is  $\text{ZnCO}_3$ . The formula for basic zinc

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carbonate is  $\text{Zn}_5(\text{OH})_6(\text{CO}_3)_2$  (see specification at page 6, lines 5-6). As shown by the chemical formulas, Applicants submit basic zinc carbonate contains at least one "-OH" group, while zinc carbonate does not contain any "-OH" groups. As the MSDS does not have the correct chemical formula for zinc carbonate, Applicants submit the MSDS is erroneous. The MSDS purports to identify and provide information concerning "zinc carbonate". Accordingly, the MSDS should contain the correct formula of zinc carbonate, which is  $\text{ZnCO}_3$ .

Secondly, Section 2 of the MSDS, entitled "Composition/Information on Ingredients" states the Ingredients of Zinc Carbonate are Zinc Carbonate (3%) and Zinc Oxide (70%). Zinc Carbonate, having the correct formula of  $\text{ZnCO}_3$ , does not contain Zinc Oxide. Therefore, this MSDS is internally inconsistent with regard to nomenclature. The chemical formula and the list of ingredients for the purported "Zinc Carbonate" of the MSDS are not consistent with each other.

Additionally, in view of the late date of the MSDS sheet vis-a-vis the filing date of the instant application, and in view of the inconsistencies in the data presented in the MSDS sheet, it is respectfully submitted that it cannot be relied upon to provide any expanded scope to the disclosures to the Blank et al. reference beyond that reflected in the Blank et al. reference itself.

However, similar to the remarks made above, the zinc carbonate disclosed by Blank et al is not the same as the zinc-containing layered material, as disclosed and required by the present invention. As defined in the present specification on pages 4, line 32 to page 6, line 7, the zinc-containing layered material, such as basic zinc carbonate are those with crystal growth primarily occurring in two dimensions (page 5, lines 5-10) wherein zinc carbonate is not considered by one of skill in the art to be a layered structure. The ideal stoichiometry for basic zinc carbonate is represented by  $\text{Zn}_5(\text{OH})_6(\text{CO}_3)_2$ , but the actual stoichiometric ratios can vary slightly and other impurities may be incorporated in the crystal lattice (page 6, lines 5-7). Zinc carbonate, as generally included in Blank et al, is generally known by one of skill in the art to have the chemical formula  $\text{ZnCO}_3$ . Thus, zinc carbonate as disclosed in Blank et al. does not disclose a "zinc-containing layered material" as is required in the present invention.

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Therefore, Wiese in view of Blank et al. does not establish a *prima facie* case of obviousness because it does not teach or suggest all of claim limitations. Therefore, the claimed invention is unobvious and Applicants respectfully request that the rejection should be withdrawn.

Conclusion

In light of the above remarks, it is requested that the Examiner reconsider and withdraw the rejection under 102(b) and 103(a). Early and favorable action in the case is respectfully requested.

This response represents an earnest effort to place the application in proper form and to distinguish the invention as now claimed from the applied references. In view of the foregoing, reconsideration of this application, entry of the amendments presented herein, and allowance of Claims 1, 3-4 and 7-25 is respectfully requested.

Respectfully submitted,

THE PROCTER & GAMBLE COMPANY

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